

DRAFT

**PREVENTION OF SIGNIFICANT DETERIORATION PERMIT
STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE
This permit includes designated equipment subject to
New Source Performance Standards (NSPS).**

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Virginia Electric and Power Company
5000 Dominion Boulevard
Glen Allen, Virginia 23060
Registration No. 11526

is authorized to construct and operate

an electric power generating facility

located at

Alternate Route 58, Virginia City, Wise County, Virginia

in accordance with the Conditions of this permit.

Approved on **DRAFT.**

Dallas R. Sizemore
Regional Director

Permit consists of 40 pages.
Permit Conditions 1 to 86.

INTRODUCTION

This permit approval is based on the permit application dated July 5, 2006, including supplemental information dated February 28, 2007, and amendment information received August 15 and 16, September 4, 11, 17, 20, and 25, October 17, 23, 26, 29, 30, and 31, December 27 and 28, 2007, and January 2, 2008. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-20 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

1. **Equipment List** - Equipment at this facility consists of the following:

Equipment to be Constructed			
Reference No.	Equipment Description	Rated Capacity	Federal Emission Standards
CFB1 and CFB2	Two circulating fluidized bed (CFB) boilers	$3,132 \times 10^6$ Btu/hr (MMBtu/hr), each	NSPS, Subpart Da
AUX	One auxiliary boiler	190 MMBtu/hr	NSPS, Subpart Db
EDG	One emergency generator engine	7 MMBtu/hr	NSPS, Subpart IIII
EFP	One emergency fire pump engine	8.4 MMBtu/hr	NSPS, Subpart IIII
P1	Coal reclaim system		NSPS, Subpart Y
P2	Crusher building consisting of coal crushing		NSPS, Subpart Y
P3	Tripper building consisting of material handling and storage		NSPS, Subparts Y and OOO
P4 and P5	Two fly ash silos		

Equipment to be Constructed			
Reference No.	Equipment Description	Rated Capacity	Federal Emission Standards
P6 and P7	Two bed ash silos		
FOM	Distillate oil storage tank	168,000 gallons	
	Three coal truck unloading facilities		NSPS, Subpart Y
	One railcar coal unloading facility		NSPS, Subpart Y
	Coal screens and breakers		NSPS, Subpart Y
	One limestone truck unloading facility		NSPS, Subpart OOO
	Limestone reclaim system		NSPS, Subpart OOO
	Limestone crushers		NSPS, Subpart OOO
	One breaker reject storage silo		
	One wood unloading facility		

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.

(9 VAC 5-80-1180 D 3)

2. **Emission Controls** – Particulate matter emissions from each CFB boiler shall be controlled by a fabric filter baghouse. Each fabric filter baghouse shall be provided with adequate access for inspection.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
3. **Emission Controls** – Sulfur dioxide and sulfuric acid mist emissions from the CFB boilers shall be controlled by limestone injection into each boiler and a flue gas desulfurization system for each boiler. Each limestone injection and flue gas desulfurization system shall be provided with adequate access for inspection. This condition applies at all times except during startup and shutdown of the CFB boilers.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
4. **Emission Controls** – Emissions of nitrogen oxides from the CFB boilers shall be controlled by selective non-catalytic reduction using ammonia injection for each boiler. Each selective non-catalytic reduction system shall be provided with adequate access for inspection. This condition applies at all times except during startup and shutdown of the CFB boilers.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
5. **Emission Controls** – Carbon monoxide and volatile organic compound emissions from the CFB boilers, auxiliary boiler, the emergency generator engine and the fire pump engine shall be controlled by good combustion practices. Each boiler and engine shall be provided with adequate access for inspection.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)

6. **Emission Controls** – Emissions of nitrogen oxides from the auxiliary boiler shall be controlled by low-NO_x burners. The low-NO_x burners shall be provided with adequate access for inspection.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
7. **Emission Controls** – Emissions of nitrogen oxides from the emergency generator engine and the fire pump engine shall be controlled by ignition timing retard or an equivalent control technology or method, at a minimum.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
8. **Emission Controls** – Particulate matter emissions from unloading coal, coal refuse and wood/bark delivered to the facility shall be controlled by partially enclosed unloading facilities and wet suppression. The unloading facilities and wet suppression systems shall be provided with adequate access for inspection.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
9. **Emission Controls** – Particulate matter emissions from coal screens and coal breakers shall be controlled by partial enclosures and wet suppression. The screens, breakers, enclosures and wet suppression systems shall be provided with adequate access for inspection.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
10. **Emission Controls** – Particulate matter emissions from conveyor transfers shall be controlled by wet suppression or equivalent, at a minimum. The conveyor transfers and wet suppression systems shall be provided with adequate access for inspection.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
11. **Emission Controls** – Particulate matter emissions from truck loading facilities for ash and coal breaker reject material shall be controlled by partial enclosures and wet suppression. Ash shall be wetted by a pug mill prior to discharge from storage silos or loaded into tanker trucks through enclosed transfer systems. Air displaced from tanker trucks shall be vented back into the storage silos. The loading facilities, wet suppression systems, pug mills and enclosed transfer systems shall be provided with adequate access for inspection.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
12. **Emission Controls** – Particulate matter emissions from coal crushing shall be controlled by a fabric filter baghouse. Each crusher and fabric filter baghouse shall be provided with adequate access for inspection.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
13. **Emission Controls** – Particulate matter emissions from limestone crushing and drying shall be vented to the CFB boilers. Each crusher shall be provided with adequate access for inspection.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)

14. **Emission Controls** – Particulate matter emissions from handling, transfer and storage of fuel and limestone at the boiler house shall be controlled by the tripper building fabric filter baghouses. Each fabric filter baghouse shall be provided with adequate access for inspection.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
15. **Emission Controls** – Particulate matter emissions from the coal reclaim system, the limestone unloading facility and each storage silo shall be controlled by fabric filter baghouses. Each fabric filter baghouse shall be provided with adequate access for inspection.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
16. **Fugitive Dust and Fugitive Emission Controls** – Fugitive dust and fugitive emission controls shall include the following, or equivalent, as approved by DEQ:
- a. Equipment for conveying or transporting coal, coal refuse, wood/bark or limestone shall be covered or enclosed. Ash shall be conveyed between boiler systems, control devices and storage silos through enclosed mechanical or pneumatic transfer systems.
 - b. The loading of coal and coal refuse onto storage piles shall be through stackers with telescoping chutes.
 - c. All material being stockpiled shall be kept adequately moist using water or surfactant to control dust during storage and handling or covered at all times to minimize emissions.
 - d. Dust from haul roads, traffic areas and construction operations shall be controlled by the application of asphalt, water or suitable chemicals.
- (9 VAC 5-80-1180, 9 VAC 5-80-1705, 9 VAC 5-50-90 and 9 VAC 5-50-280)
17. **Emission Controls** – Volatile organic compound emissions from the 168,000 gallon capacity distillate oil storage tank shall be controlled by a conservation vent. The conservation vent shall be provided with adequate access for inspection.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 and 9 VAC 5-50-280)
18. **Emissions Testing** – The electric power generating facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Upon request by DEQ, sampling ports, safe sampling platforms and access shall be provided at the appropriate locations.
(9 VAC 5-80-1180, 9 VAC 5-50-30 F and 9 VAC 5-80-1675)

OPERATING LIMITATIONS

19. **Operating Hours** – The auxiliary boiler shall not operate more than 4,000 hours per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180 and 9 VAC 5-80-1985 E)
20. **Equipment Certification** – The emergency generator engine and fire pump engine shall be certified to the emission standards in 40 CFR 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, National Fire Protection Association nameplate) engine power. Each engine must be installed and configured according to the manufacturer's specifications, at a minimum.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 A and 40 CFR 60.4211(c))
21. **Operating Hours** – Operation of the emergency generator engine and fire pump engine for the purpose of maintenance checks and readiness testing shall not exceed 100 hours per year, each, provided the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. If additional time is needed for maintenance checks and readiness testing, the permittee shall submit a written request for additional time to the Director, Southwest Regional Office prior to the additional operation. A written request is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency engines more than 100 hours per year. The engines shall not be operated more than 500 hours per year, each for any reason, including maintenance, testing and emergency purposes.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 A and 40 CFR 60.4211(e))
22. **Heat Input** – Heat input to each CFB boiler shall not exceed $27,436,320 \times 10^6$ Btu per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180 and 9 VAC 5-80-1985 E)
23. **Fuel** – The approved fuels for the CFB boilers are bituminous coal, coal refuse, wood/bark, distillate oil and diesel fuel. The fuels shall meet the following specifications:

COAL and COAL REFUSE:

Maximum sulfur content as-fired: 2.28% as determined
by ASTM D3177, D4239, or a DEQ-approved equivalent method.

DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:
Maximum sulfur content per shipment: 0.0015%

WOOD/BARK excluding any wood which contains chemical treatments or has affixed thereto paint and/or finishing materials or paper or plastic laminates.

DIESEL FUEL which meets the ASTM D975 specification for numbers 1-D S15 or 2-D S15 diesel fuel:

Maximum sulfur content per shipment: 0.0015%

A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-1180 and 9 VAC 5-80-1985 E)

24. **Fuel Sampling and Analysis** – The permittee shall sample and analyze the fuel as fired in each CFB boiler for fluorides, chlorides, sulfur, and Btu content no less than once each calendar week using methods approved by the Director, Southwest Regional Office. Results of analyses shall be used in calculations to verify compliance with hydrogen fluoride, hydrogen chloride and sulfuric acid mist emission limits for the CFB boilers. A record of each analysis shall be maintained and shall include, at a minimum, content of each parameter, company and individual collecting the sample, identification of sampling method used, sample mass, number of samples, date sample collected, location of fuel when sample taken, date of analysis, company and individual conducting the analysis.
(9 VAC 5-80-1180 and 9 VAC 5-80-1985 E)
25. **Fuel Throughput** – The throughput of wood/bark to each CFB boiler shall not exceed 685,000 tons per year calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-1180 and 9 VAC 5-80-1985 E)
26. **Fuel** – The approved fuels for the emergency generator engine, fire pump engine and the auxiliary boiler are distillate oil and diesel fuel. The distillate oil shall meet the ASTM D396 specification for numbers 1 or 2 fuel oil except that the maximum sulfur content shall not exceed 0.0015 percent by weight per shipment. The diesel fuel shall meet the ASTM D975 specification for numbers 1-D S15 or 2-D S15 diesel fuel. A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-1180, 9 VAC 5-80-1985 E and 40 CFR 60.4207(b))
27. **Fuel Certification** – The permittee shall obtain a certification from the fuel supplier with each shipment of coal, coal refuse, wood/bark, distillate oil and diesel fuel. Each fuel supplier certification shall include the following:
- a. The name of the fuel supplier;
 - b. The date on which the fuel was received;
 - c. The quantity of fuel delivered in the shipment;

- d. A statement that the oil meets the ASTM D396 specification for fuel oil numbers 1 or 2, or ASTM D975 for diesel fuel numbers 1-D S15 or 2-D S15;
- e. The sulfur content of the fuel, excluding wood/bark;
- f. Documentation of sampling of the fuel indicating the location of the fuel when the sample was taken; and
- g. The methods used to determine the sulfur content of the fuel.

The permittee shall submit a fuel shipment certification plan at least 60 days prior to facility startup for approval by the Director, Southwest Regional Office. Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in this permit. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.

(9 VAC 5-80-1180, 9 VAC 5-80-1705 A, 40 CFR 60.46b(i), 40 CFR 60.47b(f), 40 CFR 60.49b(r)(1) and 9 VAC 5-50-410)

28. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, the NSPS equipment as described in Condition 1 shall be operated in compliance with the requirements of 40 CFR 60, Subpart Da, Subpart Db, Subpart Y, Subpart IIII and Subpart OOO, as applicable.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 A, 9 VAC 5-50-400 and 9 VAC 5-50-410)

EMISSION LIMITS

29. **Emission Limits** – Emissions from the operation of the CFB boilers shall not exceed the following limits:

	Each Boiler (lb/MMBtu)	Each Boiler (lb/hr) ^a	Combined Total (tons/yr)
Filterable Particulate Matter (PM)			274.36
3-hour average	0.010	31.32	
Total PM-10 (filterable & condensable)			329.24
3-hour average	0.012	37.58	
Total PM-2.5 (filterable & condensable)			329.24 ^b
3-hour average	0.012 ^b	37.58 ^b	
Sulfur Dioxide ^c			3,292.36
3-hour average	0.15	469.80	
24-hour average	0.12	375.84	

	Each Boiler (lb/MMBtu)	Each Boiler (lb/hr) ^a	Combined Total (tons/yr)
Nitrogen Oxides (as NO ₂) 30-day rolling average	0.07 ^d	219.24	1,920.54
Carbon Monoxide 30-day rolling average	0.15 ^e	469.80	4,115.45
Volatile Organic Compounds 3-hour average	0.005	15.66	137.18
Sulfuric Acid Mist (H ₂ SO ₄) 3-hour average	0.005	15.66	137.18
Hydrogen Fluoride 3-hour average	0.00047	1.47	12.90
Hydrogen Chloride 3-hour average	0.0066	20.67	181.07
Mercury	Note ^f		71.93 lb/yr

^a Compliance with the lb/hr limit is based on the averaging period indicated in the appropriate row.

^b This permit may be changed in accordance with 9 VAC 5-80-1925, to reduce the emission limit based on results from stack testing as required in Condition 56 of this permit.

^c Start-up is defined as the period beginning with initial firing of distillate oil and ending at 40 percent of maximum load. Maximum load for each CFB boiler is considered to be 3,132 MMBtu/hr heat input. Shutdown is defined as the period beginning with the load decreasing from 40 percent and ending when the bed material fluidizing air has been discontinued. Emissions occurring during start-up and shutdown shall be monitored, recorded, reported and included in the calculation of the 24-hour rolling average and annual emission rates, but not the 3-hour rolling average.

^d Emission limit applies at loads equal to or greater than 75 percent of maximum load. Maximum load for each CFB boiler is considered to be 3,132 MMBtu/hr heat input. The emission limit for loads less than 75 percent is the 30-day load-weighted average expressed by the formula below. The emission limit for loads equal to or greater than 75 percent is fixed at 0.07 lb/MMBtu, however, this limit is factored into the 30-day load-weighted average for loads less than 75 percent. The permittee shall calculate the 30-day weighted average emission limit for loads less than 75 percent using the following formula:

$$EL_{NOx\ 30d\ L} = \frac{\sum_{i=1}^n EL_i \times IR_i}{\sum_{i=1}^n IR_i}$$

where,

$EL_{NOx\ 30d\ L}$ = 30-day weighted average nitrogen oxides emission limit;
lb/MMBtu
 EL_i = 0.07 lb/MMBtu for loads equal to or greater than 75 percent, 0.11
lb/MMBtu for loads equal to or greater than 50 percent but less
than 75 percent, or 0.15 lb/MMBtu for loads less than 50 percent
 IR_i = the heat input rate corresponding to the incremental CEMS
reading; MMBtu
 i = incremental CEMS reading having a non-zero heat input rate
 n = the number of CEMS readings in the rolling 30-day period when
there is a heat input rate in the load range

- ^e Emission limit applies at loads equal to or greater than 75 percent of maximum load. Maximum load for each CFB boiler is considered to be 3,132 MMBtu/hr heat input. The emission limit for loads less than 75 percent is the 30-day load-weighted average expressed by the formula below. The emission limit for loads equal to or greater than 75 percent is fixed at 0.15 lb/MMBtu, however, this limit is factored into the 30-day load-weighted average for loads less than 75 percent. The permittee shall calculate the 30-day weighted average emission limit for loads less than 75 percent using the following formula:

$$EL_{CO\ 30d\ L} = \frac{\sum_{i=1}^n EL_i \times IR_i}{\sum_{i=1}^n IR_i}$$

where,

$EL_{CO\ 30d\ L}$ = 30-day weighted average carbon monoxide emission limit;
lb/MMBtu
 EL_i = 0.15 lb/MMBtu for loads equal to or greater than 75 percent, or
0.20 lb/MMBtu for loads less than 75 percent
 IR_i = the heat input rate corresponding to the incremental CEMS
reading; MMBtu
 i = incremental CEMS reading having a non-zero heat input rate
 n = the number of incremental CEMS readings in the rolling 30-day
period when there is a heat input rate in the load range

^f The mercury emission limit shall be the weighted emission limit calculated for each CFB boiler in accordance with 40 CFR 60.45Da(a)(5)(ii). The permittee shall calculate the weighted mercury emission limit in pounds per megawatt-hour (lb/MWh) for each CFB boiler in accordance with 40 CFR 60.45Da(a)(5)(ii) each calendar month. Compliance with the emission limit shall be based on the total mercury emissions from each CFB boiler contributed by each fuel burned during the compliance period and total MWh contributed by each fuel burned during the compliance period. The permittee shall calculate each calendar month's mercury emissions in accordance with 40 CFR 60.48Da(l) and using stack test data if stack testing is conducted during that month. Mercury emissions contributed by wood/bark and fuel oil combustion shall be calculated using emission factors or methods approved by the Director, Southwest Regional Office. Compliance with the applicable emission limit shall be determined on a 12-month rolling average basis.

Annual emissions are derived from the estimated overall emission contribution from operating limits including startup and shutdown. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Annual emissions are calculated monthly as the sum of each consecutive 12-month period. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions 2 – 5, 22, 23, 25, 42, 44, 45, 54, 56, 57, 63, 67 and 68.

(9 VAC 5-80-1180, 9 VAC 5-80-1705 B, 9 VAC 5-50-280 and 9 VAC 5-50-410)

30. **Emission Limits** – Emissions from the operation of the auxiliary boiler shall not exceed the following limits:

	<u>lb/MMBtu</u>	<u>lb/hr</u>	<u>tons/yr</u>
Total PM-10	0.024	4.56	9.12
Total PM-2.5 ^a	0.024	4.56	9.12
Sulfur Dioxide	0.202	38.38	76.76
Nitrogen Oxides (as NO ₂)	0.12	22.80	45.60
Carbon Monoxide	0.040	7.60	15.20
Volatile Organic Compounds	0.004	0.76	1.52

^a This permit may be changed in accordance with 9 VAC 5-80-1925, to reduce the emission limits based on results from stack testing as required in Condition 56 this permit.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions 5, 6, 19, 26, 37, 46, 47, 54, 56, and 57.

(9 VAC 5-80-1180, 9 VAC 5-80-1705 B, 9 VAC 5-50-280 and 9 VAC 5-50-410)

31. **Emission Limits** – Emissions from the operation of the emergency generator engine shall not exceed the following limits:

	<u>g/hp-hr</u>	<u>lb/hr</u>	<u>tons/yr</u>
Particulate Matter/PM-10	0.075		
Nitrogen Oxides (as NO ₂)	2.6	5.73	1.43
Carbon Monoxide	2.6	5.73	1.43
Volatile Organic Compounds	0.3		

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions 5, 7, 20, 21, 26, and 38.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 B and 40 CFR 60.4205(b))

32. **Emission Limits** – Emissions from the operation of the fire pump engine shall not exceed the following limits:

	<u>g/hp-hr</u>	<u>lb/hr</u>	<u>tons/yr</u>
Particulate Matter/PM-10	0.15		
Nitrogen Oxides plus Volatile Organic Compounds	4.8	12.70	3.17
Carbon Monoxide	2.6	6.89	1.72

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions 5, 7, 20, 21, 26, and 38.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 B and 40 CFR 60.4205(c))

33. **Emission Limits** – Emissions from the coal reclaim system baghouse exhaust, the limestone unloading facility baghouse exhaust and each storage silo baghouse exhaust shall not exceed the following limits:

Filterable Particulate Matter (PM)	0.005 gr/dscf	1.88 tons/yr
Total PM-10	0.38 lb/hr	1.66 tons/yr
Total PM-2.5 ^a	0.38 lb/hr	1.66 tons/yr

^a This permit may be changed in accordance with 9 VAC 5-80-1925, to reduce the emission limits based on results from stack testing as required in Condition 58 this permit.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions 15, 39, 58, and 59.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 B and 9 VAC 5-50-280)

34. **Emission Limits** – Emissions from the crusher building baghouse exhaust shall not exceed the following limits:

Filterable Particulate Matter (PM)	0.005 gr/dscf	6.57 tons/yr
Total PM-10	1.33 lbs/hr	5.81 tons/yr
Total PM-2.5 ^a	1.33 lbs/hr	5.81 tons/yr

^a This permit may be changed in accordance with 9 VAC 5-80-1925, to reduce the emission limits based on results from stack testing as required in Condition 58 this permit.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions 12, 39, 58, and 59.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 B and 9 VAC 5-50-280)

35. **Emission Limits** – Emissions from each tripper building baghouse exhaust shall not exceed the following limits:

Filterable Particulate Matter (PM)	0.005 gr/dscf	1.88 tons/yr
Total PM-10	0.38 lb/hr	1.66 tons/yr
Total PM-2.5 ^a	0.38 lb/hr	1.66 tons/yr

^a This permit may be changed in accordance with 9 VAC 5-80-1925, to reduce the emission limits based on results from stack testing as required in Condition 58 this permit.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions 14, 39, 58, and 59.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 B and 9 VAC 5-50-280)

36. **Emission Limits** – Fugitive emissions from the operation of the material handling equipment shall not exceed the following limits:

Particulate Matter (PM)	29.54 lbs/hr	33.78 tons/yr
Total PM-10	6.03 lbs/hr	6.70 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in, but not limited to, Conditions 8 – 11, 16, 40, and 60 – 62.

(9 VAC 5-80-1180, 9 VAC 5-80-1705 B and 9 VAC 5-50-280)

37. **Visible Emission Limit** – Visible emissions from the common exhaust stack with individual flues for the CFB boilers and auxiliary boiler shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-1180, 9 VAC 5-80-1985 E, 9 VAC 5-50-80 and 9 VAC 5-50-280)

38. **Visible Emission Limit** – Visible emissions from the emergency generator engine exhaust stack and fire pump engine exhaust stack shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-1180, 9 VAC 5-80-1985 E, 9 VAC 5-50-80 and 9 VAC 5-50-280)

39. **Visible Emission Limit** – Visible emissions from each material handling fabric filter baghouse exhaust shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-1180, 9 VAC 5-80-1985 E, 9 VAC 5-50-80 and 9 VAC 5-50-280)

40. **Visible Emission Limit** – Visible emissions from each loading and unloading facility, coal screen and breaker enclosure, conveyor transfer, stockpile and any other material handling, processing and storage equipment shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-1180, 9 VAC 5-80-1985 E, 9 VAC 5-50-80 and 9 VAC 5-50-280)

AIR QUALITY RELATED VALUES

41. **Source Reductions and Emission Offsets** – For the purposes of mitigating potential air quality impacts on Air Quality Related Values (AQRVs) at the Linville Gorge Class I Area in North Carolina, including visibility and acid deposition, the permittee shall on an annual basis use reasonable efforts to reduce sulfur dioxide emissions below 3,369 tons per year and

mitigate the actual sulfur dioxide emissions impact from the facility above 1,684 tons per year in accordance with the following:

Level 1

The permittee shall reduce sulfur dioxide emissions from the facility in the normal, routine, and daily course of business, as a result of, but not limited to:

- a. **Operational practices** – Operational practices such as reduced electrical power generation and/or emissions reductions as a result of performing maintenance at the facility.
- b. **Reduced sulfur in distillate oil** – Combustion of distillate oil and/or diesel fuel with a sulfur content not exceeding 0.0015 percent by weight in the CFB boilers and the auxiliary boiler as required by Conditions 23 and 26 of this permit.
- c. **Usage of biomass** – The facility shall maximize the usage of wood/bark or other biomass fuels, to the extent feasible and allowable (see Condition 25 of this permit).
- d. **Coal sulfur content** – Combustion of coal and coal refuse with an as-fired sulfur content of less than 2.28 percent by weight in the CFB boilers.

The permittee shall proceed to Level 2 of this condition to further mitigate sulfur dioxide emissions from the facility if and only if Level 1 measures do not reduce the annual actual sulfur dioxide emissions as measured by the sulfur dioxide CEMS from VCHEC to or below 1,684 tons.

Level 2

Within 60-days after the end of the first calendar year of operation, after determining the required actual sulfur dioxide emissions reductions were not reduced to or below 1,684 tons per year by Level 1 reductions, the permittee shall develop or cause to be developed economically and environmentally reasonable project or projects that generate sulfur dioxide emission reductions from physical and/or operational changes at one or more other facilities. Such Level 2 mitigation shall be within the geographic area and in accordance with the emission reduction ratios defined in Figure 1 of this permit based on the location of the facility from which the emission reduction is generated. Level 2 mitigations must be achieved and documented within 18-months of the date Level 2 action was initiated. Level 2 mitigations can also be obtained prior to the initial operation of the VCHEC facility. To be eligible for credit as mitigation, Level 2 mitigation obtained cannot be mandated as part of:

- a. Legal actions (such as a Consent Decree), or
- b. A State Implementation Plan for the Regional Haze Rule (such as Best Available Retrofit Technology), or
- c. Emission reductions required in a non-attainment area, or

- d. A source fulfilling their obligation under the Clean Air Interstate Rule.

No Level 2 mitigation obtained as a part of this permit can be sold or traded to another party, or used to fulfill other Federal or State emission reduction requirements, or be used for emission netting by the facility making the Level 2 mitigation. The permittee shall demonstrate that the Level 2 mitigation is enforceable with documentation provided by the appropriate Federal or State agency implementing the air quality program where the Level 2 mitigation occurs. The permittee may claim credit if it becomes economically and environmentally reasonable to install additional equipment or operations that control actual sulfur dioxide emissions at another facility beyond the level required under the applicable regulatory or legal requirements in effect as of December 31, 2007. For purposes of this provision, economically reasonable Level 2 mitigation is that which can be purchased as the result of issuing a market solicitation of major stationary sulfur dioxide sources in the Figure 1 area at a cost less than or equivalent to that for Level 3 mitigation of this Condition taking into account the emission offset ratio and amortization of the Level 2 cost discounted over 55 years.

The permittee shall proceed to Level 3 of this condition to further mitigate sulfur dioxide emissions from the facility if and only if Level 1 reduction and Level 2 mitigation do not reduce and/or mitigate the annual actual sulfur dioxide emissions from VCHEC to or below 1,684 tons.

Level 3

Within six months of determining that the required actual annual sulfur dioxide emissions reductions were not achieved by Level 1 and Level 2 actions, the permittee shall obtain and permanently retire sulfur dioxide emission allowances from one or more facilities in accordance with the following:

- a. In addition to those allowances required under the Clean Air Interstate Rule and/or the Acid Rain Program, the number of sulfur dioxide allowances required for the respective calendar year shall be the actual sulfur dioxide emissions from VCHEC, in tons, less any Level 2 mitigation above 1,684 tons and multiplied by the corresponding ratio defined in Figure 2 of this permit.
- b. Acceptable sulfur dioxide allowances under this condition shall be allowances from facilities that were allocated sulfur dioxide allowances under 40 CFR 73 and that are located within the geographic area defined in Figure 2 of this permit.
- c. The vintage year of the allowances shall correspond to the year that is being mitigated.
- d. The permittee shall transfer these allowances into an account in the Allowance Tracking System administered by the U.S. EPA for the Acid Rain Program, to be identified by the Director, Southwest Regional Office. These retired allowances can never be used to meet any compliance requirement under the Clean Air Act, State Implementation Plan, Federal

Implementation Plan, Best Available Retrofit Technology requirements, or to net-out of PSD.

The Director, Southwest Regional Office may approve an alternative mitigation plan in lieu of this condition. At a minimum, such a plan shall result in equivalent actual sulfur dioxide emissions mitigation from an existing stationary source(s) within the geographic area defined in Figure 2 of this permit of at least 1,684 tons per year multiplied by the corresponding ratio. Such reductions shall be practicably enforceable.

Any permanent emission reductions will require documentation provided by the appropriate Federal or State agency implementing the air quality program where the emission reductions occurred. For emission allowances, the permittee shall document the amount of sulfur dioxide credits, facility, location of the facility, vintage year of allowances retired, proof that allowances have been transferred into an account identified by the Director, Southwest Regional Office and any applicable identification associated with the retired allowances.

Reporting Requirements

The permittee shall submit reports, as necessary, detailing and discussing the reductions occurring as a result of actions taken within each of the three Levels. All reports shall be sent to the Director, Southwest Regional Office and

Forest Supervisor
National Forests in North Carolina
160A Zillicoa Street
Asheville, NC 28801

Reports pertaining to Level 1 reductions shall be submitted no later than 60 days after the end of each calendar year. For Level 2 and Level 3 mitigation, the reports shall be submitted no later than 60 days after the final action deadline required by each Level. Documentation and reporting of permanent reductions, permanent offsets, and retired allowances is not required after their initial reporting.

(9 VAC 5-80-1180 and 9 VAC 5-80-1985 E)

CONTINUOUS MONITORING SYSTEMS

42. **Continuous Emission Monitoring Systems** – The permittee shall install, calibrate, maintain, operate and record the output of continuous emission monitoring systems (CEMS) for measuring emissions of sulfur dioxide, nitrogen oxides and carbon monoxide from each CFB boiler, and either the oxygen or carbon dioxide content of the flue gases from each CFB boiler at each location where emissions of sulfur dioxide or nitrogen oxides are monitored. Each CEMS shall be installed, calibrated, maintained, and operated in accordance with the applicable requirements of 40 CFR 60.13, 40 CFR 60.49Da(w)(1) through (w)(4), and DEQ approved procedures.

(9 VAC 5-80-1180, 9 VAC 5-80-1705 A, 9 VAC 5-50-40, 40 CFR 60.49Da(b)(2), (c)(1), (d), (e), (f)(2) and (w)(1)-(w)(4), and 9 VAC 5-50-410)

43. **Continuous Emission Monitoring Systems** – The permittee shall install, calibrate, maintain, operate and record the output of continuous flow monitoring systems for measuring the volumetric flow rate of exhaust gases discharged to the atmosphere from each CFB boiler. Each flow monitoring system shall be installed, calibrated, maintained, and operated in accordance with the applicable requirements of 40 CFR 60.13, 40 CFR 60.49Da(l) or (m), and DEQ approved procedures.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 A, 9 VAC 5-50-40, 40 CFR 60.49Da(l) and (m), and 9 VAC 5-50-410)
44. **Continuous Emission Monitoring Systems** – The permittee shall monitor mercury emissions from each CFB boiler in accordance with either paragraph a. or b. of this condition.
- a. Install, calibrate, maintain, and operate a CEMS to measure and record the concentration of mercury in the exhaust gases from each CFB boiler, in accordance with 40 CFR 60.49Da(p).
- b. Install, certify, maintain, and operate a sorbent trap monitoring system to measure the concentration of mercury in the exhaust gases from each CFB boiler, in accordance with 40 CFR 60.49Da(q).
(9 VAC 5-80-1180, 9 VAC 5-80-1705 A, 9 VAC 5-50-40, 40 CFR 60.49Da(p), 40 CFR 60.49Da(q) and 9 VAC 5-50-410)
45. **Continuous Monitoring Systems** – The permittee shall demonstrate compliance with the particulate matter emission limits for each CFB boiler and monitor the performance of each fabric filter baghouse for the CFB boilers in accordance with either paragraph a. or b. of this condition.
- a. Install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS), in accordance with 40 CFR 60.13, and comply with either i. or ii. as follows:
- i. Evaluate opacity in accordance with 40 CFR 60.48Da(o)(2)(i) through (vi), or
- ii. Install, calibrate, maintain, and operate a bag leak detection system in accordance with 40 CFR 60.48Da(o)(4).
- b. Install, certify, maintain, and operate a CEMS for measuring PM emissions from each CFB boiler, in accordance with 40 CFR 60.49Da(v)(1) through(3).
(9 VAC 5-80-1180 D, 9 VAC 5-80-1705 A, 40 CFR 60.48Da(o) and 9 VAC 5-50-410)

46. **Continuous Emission Monitoring Systems** – The permittee shall install, calibrate, maintain, operate and record the output of CEMS for measuring emissions of nitrogen oxides and either carbon dioxide or oxygen from the auxiliary boiler. Each CEMS shall be installed, calibrated, maintained, and operated in accordance with the applicable requirements of 40 CFR 60.48b(b) and (e), and DEQ approved procedures.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 A, 9 VAC 5-50-40, 40 CFR 60.48b(b), (c), (e) and (f), and 9 VAC 5-50-410)
47. **Continuous Monitoring Systems** – The permittee shall monitor particulate matter emissions from the auxiliary boiler in accordance with either paragraph a. or b. of this condition.
- a. Install, calibrate, maintain, operate and record the output of a COMS for measuring the opacity of emissions from the auxiliary boiler as discharged to the atmosphere, in accordance with 40 CFR 60.13.
- b. Install, certify, maintain, operate and record the output of a CEMS for measuring CO emissions from the auxiliary boiler as discharged to the atmosphere, in accordance with the procedures specified in 40 CFR 60.48b(j)(4)(i) through(iv).
(9 VAC 5-80-1180, 9 VAC 5-80-1705 A, 9 VAC 5-50-40, 40 CFR 60.48b(a), 40 CFR 60.48b(j)(4) and 9 VAC 5-50-410)
48. **Monitoring Plan** – The permittee shall prepare and submit for approval a unit-specific monitoring plan for each monitoring system for the CFB boilers and the auxiliary boiler, at least 45-days before commencing certification testing of the monitoring systems. The permittee shall comply with the requirements in the approved plan. The plan shall address the following:
- a. Installation of the CEMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of the exhaust emissions;
- b. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems;
- c. Performance evaluation procedures and acceptance criteria;
- d. Ongoing operation and maintenance procedures, ongoing data quality assurance procedures and ongoing recordkeeping and reporting procedures in accordance with 40 CFR 60 Subpart Da, the general requirements of 40 CFR 60.13 or 40 CFR part 75 as applicable.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 A, 9 VAC 5-50-50, 40 CFR 60.49Da(s) and 9 VAC 5-50-410)

49. **CEMS/COMS Performance Evaluations** – Performance evaluations of the continuous monitoring systems shall be conducted in accordance with 40 CFR Part 60, Appendix B, and shall take place during the performance tests under 9 VAC 5-50-30 or within 30 days thereafter. Two copies of the performance evaluations report shall be submitted to the Director, Southwest Regional Office within 60 days of the evaluation. The continuous monitoring systems shall be installed and operational prior to conducting initial performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device. A 30-day notification, prior to the demonstration of the continuous monitoring system's performance, and subsequent notifications shall be submitted to the Director, Southwest Regional Office.

(9 VAC 5-80-1180, 9 VAC 5-80-1985 E and 9 VAC 5-50-40)

50. **CEMS/COMS Quality Control Program** – A CEMS/COMS quality control program which meets the requirements of 40 CFR 60.13 and Appendix B or F as applicable shall be implemented for all continuous monitoring systems except that Relative Accuracy Test Audits (RATA's) may be required less frequently if approved by DEQ.

(9 VAC 5-80-1180, 9 VAC 5-80-1985 E and 9 VAC 5-50-40)

51. **Monitoring Devices** – The permittee shall install, calibrate, maintain, and operate the following:

- a. A meter measuring gross electrical output of the facility in megawatt hours (MWh); and
- b. A meter measuring steam production for each CFB boiler.

Steam production measurements shall be used to allocate gross electrical output to each CFB boiler. Each meter shall be operated and the output recorded on a continuous basis. Each meter shall be provided with adequate access for inspection.

(9 VAC 5-80-1180 D, 9 VAC 5-80-1705 A, 40 CFR 60.48Da(l), 40 CFR 60.49Da(k)(1), and 9 VAC 5-50-410)

52. **Monitoring Devices** – The permittee shall install, calibrate, maintain, and continuously operate in accordance with the manufacturer's recommendations a non-resettable hour meter to record the hours of operation of the emergency generator engine and fire pump engine.

(9 VAC 5-80-1180 D, 9 VAC 5-80-1705 A and 40 CFR 60.4209(a))

53. **Monitoring Devices** – The permittee shall install, calibrate, maintain, and operate a system for monitoring the throughput of each type of fuel to each CFB boiler and of fuel oil to the auxiliary boiler. Each monitoring system shall be installed, calibrated and maintained in accordance with the manufacturer's recommendations at a minimum and shall be provided with adequate access for inspection.

(9 VAC 5-80-1180 D and 9 VAC 5-80-1705 A)

REPORTING

54. **Excess Emissions Reports** –The permittee shall submit written reports to the Director, Southwest Regional Office of excess emissions from any process monitored by a continuous monitoring system (COMS/CEMS) on a quarterly basis, postmarked by the 30th day following the end of the calendar quarter. The permittee may submit the reports in electronic format as approved by DEQ. Each report shall include the following information, at a minimum:

- a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;
- b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;
- c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments;
- d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.
(9 VAC 5-80-1180, 9 VAC 5-80-1705 A, 9 VAC 5-50-50, 40 CFR 60.7, 40 CFR 60.51Da(i) and (k), and 9 VAC 5-50-410)

55. **Semi-Annual Reports** – The permittee shall submit written reports to the Director, Southwest Regional Office for each continuous monitoring system on a semi-annual basis, postmarked by the 30th day following the end of each six-month period. The permittee may submit the reports in electronic format as approved by DEQ. Reports submitted in electronic format shall be submitted on a quarterly basis. Each report, written or electronic, shall include the following, at a minimum:

- a. Company name and address;
- b. Date of report and beginning and ending dates of the reporting period;
- c. A signed statement indicating whether:
 - i. The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified;
 - ii. The data used to show compliance was or was not obtained in accordance with approved methods and procedures and is representative of plant performance;

- iii. The minimum data requirements have or have not been met; or, the minimum data requirements have or have not been met for errors that were unavoidable. If the minimum quantity of emission data as required by 40 CFR 60.49Da is not obtained for any 30 successive boiler operating days, the information indicated in 40 CFR 60.51Da(c) shall be submitted; and
 - iv. Compliance with the standards has or has not been achieved during the reporting period.
- d. With regard to opacity, sulfur dioxide and nitrogen oxides emissions and emissions monitoring for the CFB boilers:
- i. The average sulfur dioxide and nitrogen oxide emission rates in lb/MMBtu for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for noncompliance with the standard; and, description of corrective actions taken;
 - ii. Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 75 percent of the hours of operation of the facility; justification for not obtaining sufficient data; and description of corrective actions;
 - iii. Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NO_x only), emergency conditions (SO₂), or other reasons, and justification for excluding data for reasons other than startup, shutdown, malfunction, or emergency conditions;
 - iv. Identification of the "F" factor used in calculations, method of determination, and type of fuel combusted;
 - v. Identification of times when hourly averages have been obtained based on manual sampling methods;
 - vi. Identification of any times when the pollutant concentration exceeded the full span of the continuous emissions monitor;
 - vii. Description of any modifications to the continuous emissions monitors which could effect the ability of the CEMS to comply with the performance specifications under 40 CFR 60, Appendices B and F;
 - viii. Summary of the results of daily continuous emissions monitor drift tests and semi-annual accuracy assessments as required under 40 CFR 60, Appendix F, Procedure 1; and

- ix. For any periods for which emissions data are not obtained, the permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and the affected boiler during periods of data unavailability are to be compared with operation of the control system and the affected boiler before and following the period of data unavailability.
- e. With regard to mercury emissions and emissions monitoring for the CFB boilers:
- i. The applicable mercury emission limit;
 - ii. The number of unit operating hours for each month in the reporting period;
 - iii. The number of unit operating hours with valid data for mercury concentration, stack gas flow rate, moisture (if required), and electrical output for each month in the reporting period;
 - iv. The monthly mercury emission rate for each month in the reporting period;
 - v. The number of hours of valid data excluded from the calculation of the monthly mercury emission rate, due to unit startup, shutdown and malfunction for each month in the reporting period;
 - vi. The 12-month rolling average mercury emission rate for each month in the reporting period; and
 - vii. The data assessment report required by Appendix F or an equivalent summary of QA test results if the QA of 40 CFR Part 75 are implemented.
- f. With regard to nitrogen oxides emissions and emissions monitoring for the auxiliary boiler:
- i. The average hourly nitrogen oxides emission rates (expressed as NO₂) measured or predicted;
 - ii. The 30-day average nitrogen oxides emission rates calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
 - iii. Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards with reasons for such excess emissions as well as a description of corrective actions taken;

- iv. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
 - v. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
 - vi. Identification of the “F” factor used for calculations, method of determination, and type of fuel combusted;
 - vii. Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system;
 - viii. Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with applicable performance specifications; and
 - ix. Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR Appendix F, Procedure 1.
- g. A certification that only very low sulfur oil that meets the definition in 40 CFR 60.41b, at a minimum, was combusted in the auxiliary boiler during the reporting period.

One copy of the semi-annual report shall be submitted to the U.S. Environmental Protection Agency at the address specified in Condition 72.

(9 VAC 5-80-1180, 9 VAC 5-170-160, 9 VAC 5-50-50, 9 VAC 5-80-1705 A, 40 CFR 60.51Da, 40 CFR 60.49b(g) and 9 VAC 5-50-410)

INITIAL COMPLIANCE DETERMINATION

56. **Stack Test** – Initial performance tests shall be conducted for sulfur dioxide, nitrogen oxides, particulate matter, PM-10, carbon monoxide, volatile organic compounds, mercury, sulfuric acid mist, hydrogen chloride and hydrogen fluoride from each CFB boiler exhaust flue and for sulfur dioxide, nitrogen oxides, PM-10, carbon monoxide and volatile organic compounds from the auxiliary boiler exhaust flue to determine compliance with the emission limits contained in Conditions 29 and 30. The test methods to be used are the following USEPA reference methods, except that equivalent test methods may be substituted upon request, if approved by the Director, Southwest Regional Office, as equivalent and allowable by applicable regulations:

<u>Pollutant</u>	<u>Test Method</u>
Filterable Particulate Matter	EPA Method 5
Total PM-10	EPA Method 201A and 202
Condensable PM-10	EPA Method 202
Sulfur Dioxide	EPA Methods 6
Nitrogen Oxides	EPA Methods 7
Carbon Monoxide	EPA Method 10
Volatile Organic Compounds	EPA Methods 25A
Mercury	EPA Method 101A
Sulfuric Acid Mist	Controlled Condensate Method
Hydrogen Chloride	EPA Method 26A
Hydrogen Fluoride	EPA Method 26A

The tests shall be performed and reported within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Southwest Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, Southwest Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.

The permittee shall perform an initial stack test for PM-2.5 in the time frames as required for testing the other pollutants in this condition if a test method for PM-2.5 has received final approval by the USEPA or DEQ at that time. If a test method for PM-2.5 has not received final approval by the USEPA or DEQ at the time initial testing as required in this condition is to be conducted, the permittee shall perform initial stack testing for PM-2.5 within 60 days of final approval of a test method by USEPA or DEQ, or as required by the Director, Southwest Regional Office.

(9 VAC 5-80-1200, 9 VAC 5-50-30, 9 VAC 5-80-1675 and 9 VAC 5-50-410)

57. **Visible Emissions Evaluation** – Concurrently with the initial performance tests, visible emission evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, shall also be conducted by the permittee on the common exhaust stack for the CFB boilers

and auxiliary boiler. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Southwest Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed and reported within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Should conditions prevent concurrent opacity observations, the Director, Southwest Regional Office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests. Two copies of the test result shall be submitted to the Director, Southwest Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit. After the initial VEE, compliance with the applicable opacity limits shall be monitored using COMS data.

(9 VAC 5-80-1200, 9 VAC 5-50-30, 9 VAC 5-80-1675, 40 CFR 60.50Da(b)(3) and 60.46b(d)(7), and 9 VAC 5-50-410)

58. **Stack Test** – Initial performance tests shall be conducted for particulate matter from each material handling fabric filter baghouse exhaust to determine compliance with the emission limits contained in Conditions 33 – 35. The tests shall be performed and reported within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. The permittee shall conduct an initial performance test for PM-2.5 emissions from each material handling fabric filter baghouse exhaust within 60 days of USEPA or DEQ final approval of a test method, or as required by the Director, Southwest Regional Office. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Southwest Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, Southwest Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit. (9 VAC 5-80-1200, 9 VAC 5-50-30, 9 VAC 5-80-1675, 40 CFR 675(b)(1) and 9 VAC 5-50-410)

59. **Visible Emissions Evaluation** – Concurrently with the initial performance tests, visible emission evaluations in accordance with 40 CFR Part 60, Appendix A, Method 9, shall also be conducted by the permittee on each fabric filter baghouse exhaust. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Southwest Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed and reported within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Should conditions prevent concurrent opacity observations, the Director, Southwest Regional Office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests. Two

copies of the test result shall be submitted to the Director, Southwest Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-1200, 9 VAC 5-50-30, 9 VAC 5-80-1675, 40 CFR 60.254(b)(2), 40 CFR 60.675(b)(2) and 9 VAC 5-50-410)

60. **Visible Emissions Evaluation** – Visible emission evaluations in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted by the permittee on fugitive emissions from screen and breaker enclosures, unloading stations, conveyor transfers and any other equipment subject to NSPS, Subpart Y. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Southwest Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed and reported within 60 days after achieving the maximum production rate at which the equipment will be operated but in no event later than 180 days after start-up of the permitted equipment. Two copies of the test result shall be submitted to the Director, Southwest Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-1200, 9 VAC 5-50-30, 9 VAC 5-80-1675, 40 CFR 60.254(b) and 9 VAC 5-50-410)

61. **Visible Emissions Evaluation** – Visible emission evaluations in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted by the permittee on fugitive emissions from conveyor transfers and any other equipment subject to NSPS, Subpart OOO. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Southwest Regional Office. The evaluation shall be performed and reported within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Should conditions prevent opacity observations, the Director, Southwest Regional Office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Two copies of the test results shall be submitted to the Director, Southwest Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-1200, 9 VAC 5-50-30, 9 VAC 5-80-1675, 40 CFR 60.675(c)(1) and 9 VAC 5-50-410)

62. **Visible Emissions Evaluation** – Visible emission evaluations required in Condition 61 may be reduced to ten (10) sets of twenty-four (24) consecutive observations (at fifteen (15) second intervals) to yield a six (6) minute average if:

- a. There are no individual readings greater than ten (10) percent opacity for each belt conveyor, and

- b. There are no more than three (3) readings of ten (10) percent opacity for the one (1) hour period for each belt conveyor.

(9 VAC 5-80-1200, 9 VAC 5-50-30, 9 VAC 5-80-1675, 40 CFR 60.675(c)(3) and 9 VAC 5-50-410)

CONTINUING COMPLIANCE DETERMINATION

63. **Stack Tests** – Annually and upon request by the DEQ, the permittee shall conduct performance tests for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, PM-10, volatile organic compounds, mercury, sulfuric acid mist, hydrogen chloride and hydrogen fluoride from each CFB boiler exhaust to demonstrate compliance with the emission limits contained in this permit. In a calendar year when a relative accuracy test audit (RATA) is conducted on a CEMS, then a stack test for the pollutant monitored by that CEMS is not required. The permittee shall conduct annual performance tests for PM-2.5 emissions from each CFB boiler upon USEPA or DEQ final approval of a test method, or as required by the Director, Southwest Regional Office. The details of the tests shall be arranged with the Director, Southwest Regional Office. In addition to performance tests, continuous compliance with emission standards and permit limits shall be determined by CEMS data.

(9 VAC 5-80-1200, 9 VAC 5-80-1675 and 9 VAC 5-50-30 G)

64. **Stack Tests** – If any mercury emission limit for the CFB boilers is exceeded, the permittee shall within 18 months of the date of the exceedance determination, install, operate and conduct a performance test on an activated carbon injection system or equivalent control technology as approved by DEQ to control mercury emissions from each CFB boiler. The mercury control system shall be installed, operated and maintained in accordance with manufacturer's recommendations, at minimum. The details of the test shall be arranged with the Director, Southwest Regional Office.

(9 VAC 5-80-1200, 9 VAC 5-80-1675 and 9 VAC 5-50-30 G)

65. **Stack Tests** – If results of the initial performance test indicate PM-10 emissions from the CFB boilers exceed the PM-10 emission limit in lb/MMBtu in this permit, the permittee shall complete an optimization of all equipment affecting such emissions and retest for PM-10 emissions from the CFB boilers in accordance with the following:

- a. The permittee shall submit to the Director, Southwest Regional Office for approval a plan for optimizing the performance of all equipment affecting PM-10 emissions. The optimization plan shall be submitted within 60 days of reporting to DEQ the results of the initial performance test.
- b. The permittee shall complete the approved optimization and notify the Director, Southwest Regional Office in writing of such completion within 180 days of DEQ approval of the optimization plan. If additional time is needed to complete the optimization plan, the permittee may submit a written request for additional time to the Director, Southwest Regional Office.

- c. The permittee shall conduct and report the results of a performance test for PM-10 emissions from the CFB boilers within 60 days of completion of the optimization plan. The details of the test shall be arranged with the Director, Southwest Regional Office.

If results of the retest required in paragraph c. of this condition indicate an exceedance of the PM-10 emission limit and the permittee can demonstrate to the satisfaction of the DEQ that the actual condensable portion of PM-10 causes the exceedance, a change to the permit in accordance with 9 VAC 5-80-1925, shall be initiated within 30 days of reporting to DEQ the results of the retest to revise the PM-10 emission limit to the optimized rate up to a maximum of 0.030 lb/MMBtu. During implementation of the optimization plan, retest or permit change as required in this condition, failure to meet the PM-10 emission limits in this permit for the CFB boilers shall not be considered a violation by DEQ provided the filterable PM-10 emissions, as determined by EPA Method 201A, do not exceed 0.010 lb/MMBtu and the total PM-10 emissions, including the condensable PM-10 emissions, as determined by EPA Methods 201A and 202, or other methods as approved by DEQ, do not exceed 0.030 lb/MMBtu.

(9 VAC 5-80-1200, 9 VAC 5-80-1675 and 9 VAC 5-50-30 G)

66. **Stack Tests** – If results of the initial stack test indicate hydrogen fluoride emissions from the CFB boilers exceed the hydrogen fluoride emission limits in this permit, the permittee shall complete an optimization of all equipment affecting such emissions and retest for hydrogen fluoride emissions from the CFB boilers in accordance with the following:
- a. The permittee shall submit to the Director, Southwest Regional Office for approval a plan for optimizing the performance of all equipment affecting hydrogen fluoride emissions. The optimization plan shall be submitted within 60 days of reporting to DEQ the results of the initial performance test.
 - b. The permittee shall complete the approved optimization and notify the Director, Southwest Regional Office in writing of such completion within 180 days of DEQ approval of the optimization plan. If additional time is needed to complete the optimization plan, the permittee may submit a written request for additional time to the Director, Southwest Regional Office.
 - c. The permittee shall conduct and report the results of a performance test for hydrogen fluoride emissions from the CFB boilers within 60 days of completion of the optimization plan. The details of the test shall be arranged with the Director, Southwest Regional Office. The performance test shall include a fuel analysis and stack tests performed simultaneously on the inlet and outlet of each CFB boiler fabric filter baghouse to determine the hydrogen fluoride emission reduction.

If results of the retest required in paragraph c. of this condition indicate an exceedance of the hydrogen fluoride emission limit, a change to the permit in accordance with 9 VAC 5-80-1925, shall be initiated within 30 days of reporting to DEQ the results of the retest to revise the hydrogen fluoride emission limit to the optimized rate up to a maximum rate of 0.0023 lb/MMBtu. During implementation of the optimization plan, retest or permit change as required in this condition, failure to meet the hydrogen fluoride emission limit in this permit shall not be considered a violation by DEQ so long as hydrogen fluoride emissions do not exceed 0.0023 lb/MMBtu.

(9 VAC 5-80-1200, 9 VAC 5-80-1675 and 9 VAC 5-50-30 G)

67. **Nitrogen Oxides Emissions Compliance Determination** – The average nitrogen oxides emission rate for each CFB boiler shall be used to demonstrate compliance with the emission limit of 0.07 lb/MMBtu applicable at loads equal to or greater than 75 percent of maximum. The permittee shall calculate the average nitrogen oxides emission rate for each CFB boiler using all valid CEMS values measured at loads of 75 percent or greater for each rolling 30-day period using the following formula:

$$ER_{NOx\ 30d\ H} = \frac{\sum_{i=1}^n ER_i}{n}$$

where,

$ER_{NOx\ 30d\ H}$ = 30-day average nitrogen oxides emission rate, for the load range of 75 percent and greater; lb/MMBtu

ER_i = the incremental CEMS-measured nitrogen oxides emission rate at loads 75 percent and greater; lb/MMBtu

i = incremental CEMS reading

n = the number of incremental CEMS readings in the rolling 30-day period when the heat input rate was in the load range of 75 percent and greater

The 30-day load weighted average nitrogen oxides emission rate for each CFB boiler shall be used to demonstrate compliance with the emission limit calculated in accordance with Condition 29, for loads less than 75 percent of maximum. The permittee shall calculate the 30-day load weighted average nitrogen oxides emission rate for each CFB boiler using all valid CEMS values measured at all loads greater than zero using the following formula:

$$ER_{NOx\ 30d\ L} = \frac{\sum_{i=1}^n ER_i \times IR_i}{\sum_{i=1}^n IR_i}$$

where,

$ER_{NOx\ 30d\ L}$ = 30-day weighted average nitrogen oxides emission rate; lb/MMBtu
 ER_i = the incremental hour's CEMS-measured nitrogen oxides emission rate; lb/MMBtu
 IR_i = the heat input rate corresponding to the incremental CEMS reading; MMBtu
 i = incremental CEMS reading having a non-zero heat input rate
 n = the number of incremental CEMS readings in the rolling 30-day period when there is a heat input rate

Maximum load for each CFB boiler is considered to be 3,132 MMBtu/hr heat input. The requirements of this condition shall not limit the validity or use of other methods of compliance determination as may be required in this permit or approved by DEQ. (9 VAC 5-80-1180, 9 VAC 5-80-1985 E and 9 VAC 5-170-160)

68. **Carbon Monoxide Emissions Compliance Determination** – The average carbon monoxide emission rate for each CFB boiler shall be used to demonstrate compliance with the emission limit of 0.15 lb/MMBtu applicable at loads equal to or greater than 75 percent of maximum. The permittee shall calculate the average carbon monoxide emission rate for each CFB boiler using all valid CEMS values measured at loads of 75 percent or greater for each rolling 30-day period using the following formula:

$$ER_{CO\ 30d\ H} = \frac{\sum_{i=1}^n ER_i}{n}$$

where,

$ER_{CO\ 30d\ H}$ = 30-day average carbon monoxide emission rate, for the load range of 75 percent and greater; lb/MMBtu
 ER_i = the incremental CEMS-measured carbon monoxide emission rate at loads of 75 percent and greater; lb/MMBtu
 i = incremental CEMS reading
 n = the number of incremental CEMS readings in the rolling 30-day period when the heat input rate was in the load range of 75 percent and greater

The 30-day load weighted average carbon monoxide emission rate for each CFB boiler shall be used to demonstrate compliance with the emission limit calculated in accordance with Condition 29, for loads less than 75 percent of maximum. The permittee shall calculate the 30-day load weighted average carbon monoxide emission rate for each CFB boiler using all valid CEMS values measured at all loads greater than zero using the following formula:

$$ER_{CO\ 30d\ L} = \frac{\sum_{i=1}^n ER_i \times IR_i}{\sum_{i=1}^n IR_i}$$

where,

$ER_{CO\ 30d\ L}$ = 30-day weighted average carbon monoxide emission rate; lb/MMBtu
 ER_i = the incremental hour's CEMS-measured carbon monoxide emission rate; lb/MMBtu
 IR_i = the heat input rate corresponding to the incremental CEMS reading; MMBtu
 i = incremental CEMS reading having a non-zero heat input rate
 n = the number of incremental CEMS readings in the rolling 30-day period when there is a heat input rate

Maximum load for each CFB boiler is considered to be 3,132 MMBtu/hr heat input. The requirements of this condition shall not limit the validity or use of other methods of compliance determination as may be required in this permit or approved by DEQ. (9 VAC 5-80-1180, 9 VAC 5-80-1985 E and 9 VAC 5-170-160)

AMBIENT AIR QUALITY MONITORING AND ANALYSIS

69. **PM-2.5 Ambient Air Quality Analysis** – The permittee shall conduct an ambient air quality analysis of the emissions of PM-2.5 from the facility within 180 days after USEPA promulgates final rules for PM-2.5 analysis, or USEPA promulgates revised implementation guidance or policy for PM-2.5 analysis, or DEQ establishes a more appropriate implementation methodology for PM-2.5, or as may be directed by the Director, Southwest Regional Office.
 (9 VAC 5-80-1985 E and 9 VAC 5-80-1735)

70. **Ambient Air Quality Monitoring** – The permittee shall upon commercial startup of the facility commence ambient air quality monitoring of PM-2.5, PM-10, and sulfur dioxide. The permittee shall conduct the air quality monitoring for at least one year after normal operation of the facility is achieved. No later than 180 days prior to startup of the facility, the permittee shall submit for approval by DEQ, an ambient air monitoring plan, which shall include, at a minimum the following:

- a. Description of the site selection process for air quality and meteorological monitors;
- b. Description of the location of the monitoring sites;
- c. Description of the manufacturer and method of measurement for all monitoring equipment;

- d. Description of reporting formats and frequencies;
- e. Description of quality assurance and quality control for the monitoring program; and
- f. Description of procedures to be followed in the operation of monitoring equipment, data processing and data validation.

All monitoring and associated tasks shall conform to, at a minimum, the applicable requirements of 40 CFR Parts 50, 53, and 58, and any other requirements specified by DEQ. (9 VAC 5-80-1985 E and 9 VAC 5-80-1735 B and C)

RECORDS

71. **On Site Records** – The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to:
- a. Monthly and annual hours of operation of the auxiliary boiler, the emergency generator engine and the fire pump engine. Annual hours of operation shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
 - b. Monthly and annual heat input to each CFB boiler. Annual heat input shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
 - c. Monthly and annual throughput of each type of fuel and limestone to each CFB boiler. Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
 - d. Monthly and annual amounts of each type of fuel and limestone delivered to the facility. Annual amounts shall be calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

- e. Emissions calculations, based on data from fuel analyses, stack tests and CEMS, for each CFB boiler and the auxiliary boiler using calculation methods approved by the Director, Southwest Regional Office, to verify compliance with the applicable emission limits in this permit.
- f. Nitrogen oxides and carbon monoxide emission limit calculations in accordance with Condition 29.
- g. Nitrogen oxides and carbon monoxide emission rate calculations in accordance with Conditions 67 and 68, respectively.
- h. Monthly mercury emission limit calculations in accordance with 40 CFR 60.45Da(a)(5)(ii) for each CFB boiler.
- i. Daily throughput of fuel oil to the auxiliary boiler.
- j. Dimensions of the 168,000 gallon storage tank and an analysis showing the capacity of the storage vessel.
- k. All fuel supplier certifications.
- l. Results of each as-fired fuel sample analysis.
- m. Annual capacity factor for the auxiliary boiler determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
- n. Information required in each Excess Emission Report and continuous monitoring system Semi-Annual Report as required in this permit.
- o. Gross electrical output, in MWh, for the facility and steam production for each CFB.
- p. Scheduled and unscheduled maintenance, and operator training.
- q. Continuous monitoring system calibrations and calibration checks, percent operating time, excess emissions, and adjustments and maintenance performed on continuous monitoring systems and devices.
- r. Results of all stack tests, visible emission evaluations and performance evaluations.
- s. Documentation of emission reductions and/or mitigation as required in Condition 41 of this permit.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-1180, 9 VAC 5-80-1985 E, 9 VAC 5-50-50 and 9 VAC 5-50-410)

NOTIFICATIONS

72. **Initial Notifications** – The permittee shall furnish written notification to the Director, Southwest Regional Office of:

- a. The actual date on which construction of the electric power generating equipment commenced within 30 days after such date.
- b. The actual start-up date of the electric power generating equipment within 15 days after such date.
- c. The anticipated date of continuous monitoring system performance evaluations postmarked not less than 30 days prior to such date.
- d. The anticipated date of performance tests of the electric power generating equipment postmarked at least 30 days prior to such date.

Copies of the written notifications referenced in this condition are to be sent to:

Associate Director
Office of Air Enforcement (3AP10)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029
(9 VAC 5-80-1180, 9 VAC 5-80-1985 E and 9 VAC 5-50-50)

GENERAL CONDITIONS

73. **Permit Invalidation** – This permit to construct the electric power generating equipment shall become invalid, unless an extension is granted by the DEQ, if:

- a. A program of continuous construction is not commenced within 18 months from the date of this permit; or
- b. A program of construction is discontinued for a period of 18 months or more, or is not completed within a reasonable time, except for a DEQ approved period between phases of a phased construction project.

(9 VAC 5-80-1210 and 9 VAC 5-80-1985)

74. **Changes to Permits** – Changing, amending, and reopening this permit may be initiated by the DEQ or the permittee and shall be made as specified in 9 VAC 5-80-1925.

(9 VAC 5-80-1260 and 9 VAC 5-80-1925)

75. Permit Suspension/Revocation – This permit may be suspended or revoked if the permittee:

- a. Knowingly makes material misstatements in the permit application or any amendments to it;
- b. Fails to comply with the conditions of this permit;
- c. Fails to comply with any emission standards applicable to a permitted emissions unit;
- d. Causes emissions from the stationary source which result in violations of , or interfere with the attainment and maintenance of, any ambient air quality standard; or
- e. Fails to operate in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time an application for this permit is submitted.
(9 VAC 5-80-1210 F and 9 VAC 5-80-1985 F)

76. Right of Entry – The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
- b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
- c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
- d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.

(9 VAC 5-80-1180, 9 VAC 5-170-130 and 9 VAC 5-80-1985 E)

77. Maintenance/Operating Procedures – The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.

- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-1180 D, 9 VAC 5-50-20 E and 9 VAC 5-80-1985 E)

78. **Record of Malfunctions** – The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, cause), corrective action, preventive measures taken and name of person generating the record.
(9 VAC 5-80-1180 D, 9VAC 5-20-180 J and 9 VAC 5-80-1985 E)
79. **Notification for Facility or Control Equipment Malfunction** – The permittee shall furnish notification to the Director, Southwest Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Director, Southwest Regional Office.
(9 VAC 5-80-1180, 9 VAC 5-20-180 C and 9 VAC 5-80-1985 E)
80. **Notification for Control Equipment Maintenance** – The permittee shall furnish notification to the Director, Southwest Regional Office of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited to, the following information:
- a. Identification of the air pollution control equipment to be taken out of service, as well as its location, and registration number;
 - b. The expected length of time that the air pollution control equipment will be out of service;
 - c. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period;

d. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

(9 VAC 5-80-1180, 9 VAC 5-80-1985 E and 9 VAC 5-20-180 B)

81. **Violation of Ambient Air Quality Standard** – The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.

(9 VAC 5-80-1180, 9 VAC 5-20-180 I and 9 VAC 5-80-1985 E)

82. **Transfer of Permits** – No person shall transfer this permit from one location to another or from one piece of equipment to another, except for the relocation of portable facilities that are exempt from the provisions of 9 VAC 5-80-1605, et seq., by 9 VAC 5-80-1695 A.2.

(9 VAC 5-80-1240 A and D and 9 VAC 5-80-1975 A and D)

83. **Change of Ownership** – In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Director, Southwest Regional Office of the change of ownership within 30 days of the transfer.

(9 VAC 5-80-1240 B and 9 VAC 5-80-1975 B)

84. **Existence of Permit No Defense** – The existence of this permit shall not constitute a defense to a violation of the Virginia Air Pollution Control Law (§10.1-1300 et seq. of the Code of Virginia) or the regulations of the board and shall not relieve any owner of the responsibility to comply with any applicable regulations, laws, ordinances and orders of the governmental entities having jurisdiction.

(9 VAC 5-80-1220 and 9 VAC 5-80-1995)

85. **Registration/Update** – Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact. The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.1-340 through 2.1-348 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

(9 VAC 5-80-1180, 9 VAC 5-170-60 and 9 VAC 5-20-160)

86. **Permit Copy** – The permittee shall keep a copy of this permit on the premises of the facility to which it applies.

(9 VAC 5-80-1180 and 9 VAC 5-80-1985 E)

Figure 1: Sulfur dioxide reduction ratios for counties within the Linville Gorge Area of Influence where permanent sulfur dioxide emission reductions are to be sought.

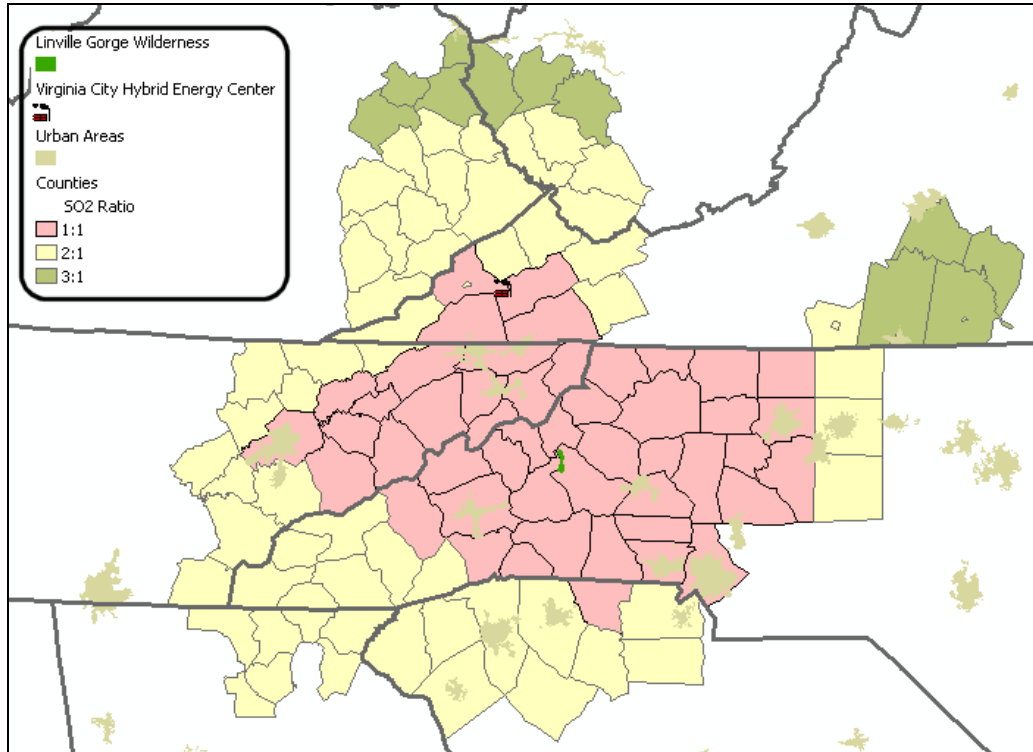
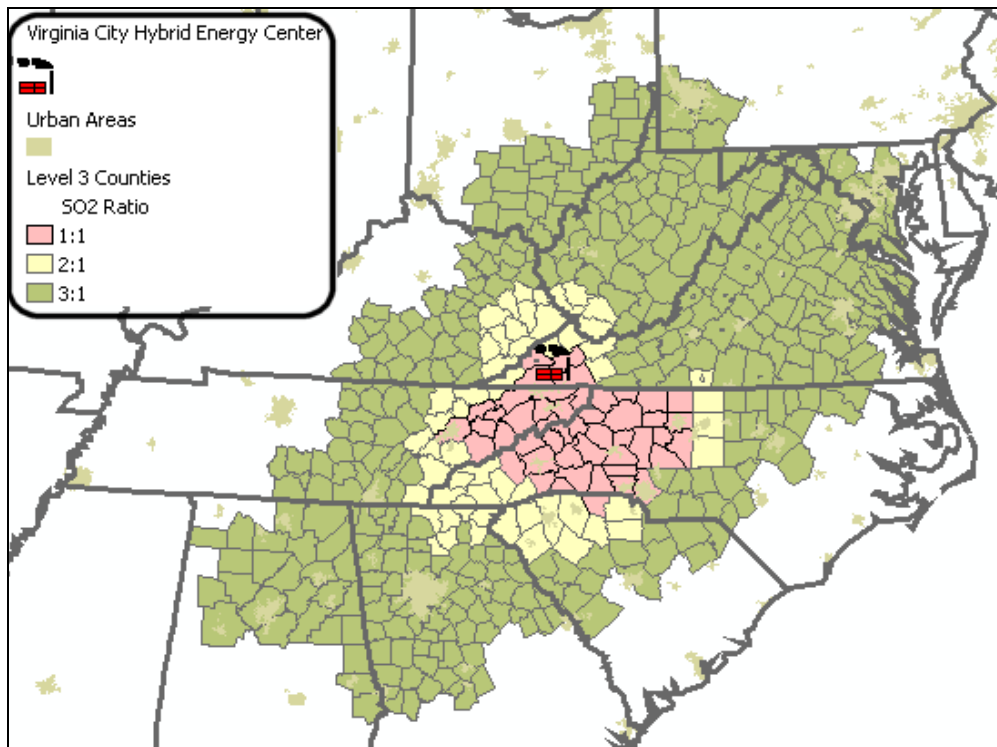


Figure 2: Sulfur dioxide allowance ratios for counties where sulfur dioxide emission allowances are to be sought. Any emissions allowance obtained outside of the counties shown in this figure and that are within the states affected by the Clean Air Interstate Rule (CAIR) will have a sulfur dioxide ratio of 6:1.



SOURCE TESTING REPORT FORMAT

Report Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Test Dates.
4. Tester; name, address and report date

Certification

1. Signed by team leader/certified observer (include certification date)
2. Signed by responsible company official
3. *Signed by reviewer

Copy of approved test protocol

Summary

1. Reason for testing
2. Test dates
3. Identification of unit tested & the maximum rated capacity
4. *For each emission unit, a table showing:
 - a. Operating rate
 - b. Test Methods
 - c. Pollutants tested
 - d. Test results for each run and the run average
 - e. Pollutant standard or limit
5. Summarized process and control equipment data for each run and the average, as required by the test protocol
6. A statement that test was conducted in accordance with the test protocol or identification & discussion of deviations, including the likely impact on results
7. Any other important information

Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Sampling port location and dimensioned cross section Attached protocol includes: sketch of stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions

Test Results

1. Detailed test results for each run
2. *Sample calculations
3. *Description of collected samples, to include audits when applicable

Appendix

1. *Raw production data
2. *Raw field data
3. *Laboratory reports
4. *Chain of custody records for lab samples
5. *Calibration procedures and results
6. Project participants and titles
7. Observers' names (industry and agency)
8. Related correspondence
9. Standard procedures

* Not applicable to visible emission evaluations